

ABSTRACT

A vehicle based data collection and processing system which may be used to collect various types of data from an aircraft in flight or from other moving vehicles, such as an automobile, a satellite, a train, etc. In various embodiments the system may include: computer

5 console units for controlling vehicle and system operations, global positioning systems communicatively connected to the one or more computer consoles, camera array assemblies for producing an image of a target viewed through an aperture communicatively connected to the one or more computer consoles, attitude measurement units communicatively connected to the one or more computer consoles and the one or more camera array assemblies, and a mosaicing

10 module housed within the one or more computer consoles for gathering raw data from the global positioning system, the attitude measurement unit, and the retinal camera array assembly, and processing the raw data into orthorectified images.